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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



**WO 03/059970 A1**

(54) Title: **FLUORINE-CONTAINING COPOLYMER**

(57) Abstract: A fluorine-containing copolymer obtained by copolymerizing tetrafluoroethylene, hexafluoropropylene and perfluoro vinyl ether as component monomers, wherein a weight ratio of tetrafluoroethylene, hexafluoropropylene and perfluoro vinyl ether units constituting the fluorine-containing copolymer is 70 to 95 : 5 to 20 : 0 to 10, respectively; the fluorine-containing copolymer having: a melt flow rate of 30 (g/10 minutes) or more; a volatile content index of 0.2 % by weight or less; and a stress relaxation modulus  $G(t)$  (unit: dyn/cm<sup>2</sup>) which satisfies the following formula at  $t = 0.1$  second when measured at a temperature of 310 :  $G(0.1) > 7 \sim 10 \sim X \sim 3000$  where  $X$  denotes the melt flow rate (unit: g/10 minutes). Also disclosed is an insulating material composed of the fluorine-containing copolymer and an insulated cable having a core conductor coated with the fluorine-containing copolymer.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/00331

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> C08F214/26

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C08F214/26

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 Japanese Utility Model Gazette 1926-1996, Japanese Publication of Unexamined Utility Model  
 Applications 1971-2001, Japanese Registered Utility Model Gazette 1994-2001, Japanese Gazette  
 Containing the Utility Model 1996-2001

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 62-192411 A (E.I.DU PONT DE NEMOURS AND COMPANY) 1987.08.24, CLAIM 1; (FAMILY:NONE)	1-11
A	JP 9-52920 A (E.I.DU PONT DE NEMOURS AND COMPANY) 1997.02.25, CLAIM 1 & EP 759446 A1	1-11
A	JP 9-202814 A (E.I.DU PONT DE NEMOURS AND COMPANY) 1997.08.05, CLAIMS 1-3 & US 5700889 A	1-11
A	JP 59-166516 A (DAIKIN INDUSTRIES, LTD.) 1984.09.19, CLAIMS 1-3 & EP 117450 A1	1-11
A	JP 2002-535456 A (DYNEON GMBH & CO KG) 2002.10.22, CLAIMS 1-15 & EP 1165632 A1	1-11

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 58-69213 A (DAIKIN INDUSTRIES, LTD.) 1983.04.25, CLAIMS 1-3 & EP 75312 A2	1-11
A	WO 01/36504 A1 (DAIKIN INDUSTRIES, LTD.) 2001.05.25, CLAIMS 1-4 & EP 1262496 A1	1-11